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| PATENT APPLICATION FEE DETERMINATION RECORD | | | | | Application Filing Number 01/0302891 |
|--|---|--------------|---|------------------|---|
| Substitute for Form PTO-875 | | | | | |
| CLAIMS AS FILED - PART I | | | | | OTHER THAN SMALL ENTITY |
| (Column 1) | | | (Column 2) | | OR |
| FOR | NUMBER FILED | NUMBER EXTRA | RATE | FEES | RATE |
| BASIC FEE (37 CFR 1.16(a)) | | | \$ | | \$ |
| TOTAL CLAIMS (37 CFR 1.16(c)) | minus 20 = | * | X \$ | = | X \$ |
| INDEPENDENT CLAIMS (37 CFR 1.16(b)) | minus 3 = | * | X \$ | = | X \$ |
| MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(d)) | | | + \$ | = | + \$ |
| | | | TOTAL | | TOTAL |
| * If the difference in column 1 is less than zero, enter "0" in column 2. | | | | | |
| CLAIMS AS AMENDED - PART II | | | | | OTHER THAN SMALL ENTITY |
| 2-24-01 (Column 1) | | | (Column 2) | (Column 3) | OR |
| AMENDMENT A | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | SMALL ENTITY |
| Total (37 CFR 1.16(c)) | 65 | Minus | 33 | 33 | RATE X \$ |
| Independent (37 CFR 1.16(b)) | 9 | Minus | 4 | 5 | ADDITIONAL FEE X \$ |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) | | | | | + \$ |
| 1/11/15/29, 30, 32, 34, 48/50 | | | | | TOTAL AD'L FEE |
| 1/18-02 (Column 1) | | | (Column 2) | (Column 3) | OR |
| AMENDMENT B | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE X \$ |
| Total (37 CFR 1.16(c)) | Minus | 8 | 1 | 1 | ADDITIONAL FEE X \$ |
| Independent (37 CFR 1.16(b)) | Minus | 8 | 1 | 1 | + \$ |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) | | | | | TOTAL AD'L FEE |
| 9-24-02 (Column 1) | | | (Column 2) | (Column 3) | OR |
| AMENDMENT C | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE X \$ |
| Total (37 CFR 1.16(c)) | Minus | ** | = | = | ADDITIONAL FEE X \$ |
| Independent (37 CFR 1.16(b)) | Minus | ** | = | = | + \$ |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) | | | | | TOTAL AD'L FEE |
| <ul style="list-style-type: none"> • If the entry in column 1 is less than the entry in column 2, write "0" in column 3. • If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". • If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p> | | | | | |

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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| PATENT APPLICATION FEE DETERMINATION RECORD | | | | | Application or Docket Number <i>89/632,891</i> |
|---|---|------------------|---|------------------|---|
| Substitute for Form PTO-875 | | | | | |
| CLAIMS AS FILED - PART I | | | | | |
| (Column 1) | | (Column 2) | | | |
| FOR | | NUMBER FILED | NUMBER EXTRA | | |
| BASIC FEE (37 CFR 1.16(a)) | | | | | |
| TOTAL CLAIMS (37 CFR 1.16(c)) | | minus 20 = | | | |
| INDEPENDENT CLAIMS (37 CFR 1.16(b)) | | minus 3 = | | | |
| MULTIPLE DEPENDENT CLAIM PRESENT | | (37 CFR 1.16(d)) | | | |
| * If the difference in column 1 is less than zero, enter "0" in column 2. | | | | | |
| CLAIMS AS AMENDED - PART II | | | | | |
| <i>6-11-03</i> (Column 1) (Column 2) (Column 3) | | | | | |
| AMENDMENT A | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | |
| | Total (37 CFR 1.16(c)) | <i>51</i> | Minus | <i>65</i> | |
| | Independent (37 CFR 1.16(b)) | <i>6</i> | Minus | <i>9</i> | |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) | | | | | |
| <i>7-7-04</i> (Column 1) (Column 2) (Column 3) | | | | | |
| AMENDMENT B | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | |
| | Total (37 CFR 1.16(c)) | <i>312</i> | Minus | <i>**</i> | |
| | Independent (37 CFR 1.16(b)) | | Minus | <i>81</i> | |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) | | | | | |
| (Column 1) (Column 2) (Column 3) | | | | | |
| AMENDMENT C | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | |
| | Total (37 CFR 1.16(c)) | | Minus | <i>**</i> | |
| | Independent (37 CFR 1.16(b)) | | Minus | <i>***</i> | |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) | | | | | |
| * If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1. | | | | | |
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| If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2. | | | | | |

Our Reference: UMJ-102-B (UM1544p1)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Curtis L. Munson & Ralph T. Yang

Serial Number: 09/632,891

Filing Date: August 7, 2000

Examiner/Art Group Unit: Tam M. Nguyen/1764

Title: SULFUR RESISTANT ADSORBENTS

OFFICIAL

FAX RECEIVED

JUL 25 2001

GROUP 1700

COMMUNICATIONAssistant Commissioner of Patents
Washington, D.C. 20231

Sir:

The Office Action dated April 24, 2001 has been received and carefully reviewed. Please revise the above-identified patent application as indicated below. Entry of this Communication is respectfully requested.

In the specification:

At page 1, lines 4-9, please replace the paragraph with the following paragraph:

A1
 This application is related to co-pending United States Application Serial No. 09/177,256, filed October 22, 1998, and to United States Application Serial No. 09/179,667, filed October 27, 1998, now U.S. Patent No. 6,215,037, each of which applications is incorporated herein by reference in its entirety.

A2
 Please replace the paragraph at page 11, lines 1-17 with the following paragraph:

In a further embodiment, a novel method is disclosed for separating a diene from a mixture including the diene and a sulfur compound. The process comprises the step of contacting the mixture with an adsorbent which preferentially adsorbs the diene, at a selected temperature and pressure, thereby producing a non-adsorbed component and a diene-rich adsorbed component. The adsorbent comprises an ion-exchanged zeolite selected from the group consisting of zeolite X, zeolite Y, zeolite LSX, and mixtures thereof, the zeolite having

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| 07/24/01 TUE 20:10 [TX/RX NO 7040] Q003 | |
| 02 FC:1202 | 594.00 DA |